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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,966	06/14/2005	Thomas Freser-Wolzenburg	551.1007	7511
23280	7590	03/17/2009		
Davidson, Davidson & Kappel, LLC			EXAMINER	
485 7th Avenue			HAUTH, GALEN H	
14th Floor				
New York, NY 10018			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			03/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,966

Applicant(s)

FRESER-WOLZENBURG ET AL.

Examiner

GALEN HAUTH

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made to applicant's amendment of claim 17 and cancellation of claims 23-28. No new matter has been added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sulzbach et al. (6361723) in view of Proulx et al. (PN 3145240) and Hendry (PN 4781554).

- a. With regards to claim 17, Sulzbach teaches a method for manufacturing foam moldings (abstract) of polyurethane (col 1 ln 7) in which an expandable reactive polyurethane mixture is introduced into the mold (col 2 ln 30-33) with expansion channels in the top mold half (Fig. 1). Sulzbach teaches closing the

opening through which material was introduced when a desired internal pressure is reached (col 3 ln 5-7). Sulzbach teaches opening the mold and removing the product (col 4 ln 9). Sulzbach fails to teach the use of needle valves to close the expansion openings as well as the sensing of a pressure change in the valve capillary.

b. Proulx teaches a method for forming foamed polymeric articles (col 1 ln 10-14). Proulx teaches the use of a common conduit to both provide a negative pressure to remove gasses during a molding process and a positive pressure to eject a molded article from the mold (col 4 ln 40-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the same conduit for vacuum supply to the mold of Sulzbach for a positive pressure ejection system as taught by Proulx as such was a well known method in the art at the time the invention was made to eject material from a mold.

c. Hendry teaches a method for use of a needle valve to inject plastic material (col 1 ln 23-30) and control positive and negative fluid pressures (col 2 ln 50-54). Hendry teaches using the valve to vent a pressure from inside the mold in which the pressure of the material in the mold biases the valve open and when the pressure in the valve line has dropped the valve is closed (col 11 ln 31-40, a valve line is a valve capillary). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the three way needle valve of Hendry for the expansion channels of Sulzbach as doing so allows for a single valve to introduce material into the mold, remove gasses with negative pressure,

and eject an article with positive pressure as all three can be controlled as taught by Hendry and using positive and negative pressure in a single conduit in the foam production process was well known as taught by Proulx.

d. With regards to claims 18-20, Sulzbach in view of Proulx and Hendry as applied to claim 17 above, teach evacuating the mold, introducing material into the mold, and ejecting material using compressed air through the needle valves.

e. With regards to claim 21, Sulzbach teaches using a connected shared media source of negative pressure (vacuum source, col 3 ln 10-13).

f. With regards to claim 22, Sulzbach does not teach adjusting the negative pressure applied to each valve individually; however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the vacuum pressure applied to each valve individually, because doing so allows for greater process control of the evacuation process and thus is process optimization.

Claim Objections

5. Claim 19 is objected to because of the following informalities: Claim 19 recites the word "also" when referring to the step of introducing material through the needle valve; however, given that claim 19 depends on 17 there is no alternate step performed by the needle valve to warrant the use of "also". Were claim 19 dependent on claim 18 the use of the term would be appropriate. Appropriate correction is required.

Response to Arguments

6. Applicant's arguments with respect to claims 17-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GALEN HAUTH whose telephone number is (571)270-5516. The examiner can normally be reached on Monday to Thursday 8:30am-5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/GHH/

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791